



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS,  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/785,669	02/24/2004	Rodney S. Haaland	MP-297D	2691
7590 Edward J. Timmer P.O. Box 770 Richland, MI 49083-0770		05/08/2007	EXAMINER VO, HAI	
			ART UNIT 1771	PAPER NUMBER
			MAIL DATE 05/08/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/785,669

Applicant(s)

HAALAND, RODNEY S.

Examiner

Hai Vo

Art Unit

1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 02 March 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 12-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 12-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

Art Unit: 1771

1. The art rejections over Kiniwa et al (US 5,173,421) have been withdrawn in view of the present amendment and response. Kiniwa teaches a cell culture carrier which does not have a shape or a configuration of a metallic casting. However, new ground of rejection is made in view of the newly discovered reference to Young (US 4,147,821).
2. The art rejections over Tran and Krug separately are maintained.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 12-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Tran et al (US 5,536,562). Tran teaches a sintered porous ceramic article having the pores impregnated with PMMA resin which is crosslinked (tables 1 and 2, column 8, lines 60-67, and claim 1). Tran discloses the porous ceramic article in the form of a cylinder (table 3). Kemp (US 4,318,437) evidences a metallic casting of a cylindrical shape. The claims do not require a metallic casting being part of a structure of a casting core, but a core having a shape similar to the shape of the metallic casting. Accordingly, Tran anticipates the claimed subject matter.
5. The art rejections over Tran have been maintained for the following reasons.  
Applicant argues that Tran does not teach or suggest a core having a shape similar to the shape of the metallic casting. That is not true. Tran discloses the porous

Art Unit: 1771

ceramic article in the form of a cylinder (table 3). Kemp (US 4,318,437) evidences a metallic casting of a cylindrical shape. Likewise, Tran discloses the ceramic core having a shape similar to the shape of the metallic casting.

6. Claims 12, 13 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Krug (US 5,460,854). Krug teaches an impregnated ceramic core having a fired porous ceramic core having the pores impregnated with polyacrylic acid (column 2, lines 49-50). The impregnated ceramic core for use in investment casting (column 1, lines 5-20). Likewise, the ceramic core has a configuration to form an interior surface of a metallic casting. Since Krug and Applicant are using the same acrylic polymer to fill the pores of the core, it is not seen that the acrylic polymer would not be a water-insoluble. The polymer is present in an amount of 0.25 to 1.3% by weight (column 4, lines 29-31). Accordingly, Krug anticipates the claimed subject matter.

7. The art rejections over Krug have been maintained for the following reasons.

Applicant argues that Krug discloses an aqueous solution of a water-soluble gum, resin or sugar. Therefore, Krug does not teach or disclose an aqueous emulsion of a *water-insoluble* polymer. The examiner respectfully disagrees. The arguments are in conflict with what is shown in claim 13. Since Krug and Applicant use the same material such as acrylic resin for forming an impregnating solution, it is not seen that an acrylic resin could not be water insoluble. Further, Rothman (US 4,514,504) evidences that polyacrylic acid is a water soluble polymer. It is suggested that acrylic is removed from a laundry list to avoid the contradiction.

Art Unit: 1771

8. Claims 12, 13 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Young (US 4,147,821). Young teaches an impregnated ceramic material having a fired porous ceramic core having the pores impregnated with an aqueous emulsion of a cross-linked acrylic polymer (column 3, lines 60-65, column 4, lines 1-2, column 8, lines 1-5). The impregnated ceramic material for use in investment casting (column 1, lines 5-10). Likewise, the ceramic material has a configuration to form an interior surface of a metallic casting. The polymer is present in an amount of 1 to 5% by weight (column 5, lines 30-35). Accordingly, Young anticipates the claimed subject matter.

### ***Conclusion***

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Art Unit: 1771

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai Vo whose telephone number is (571) 272-1485. The examiner can normally be reached on Monday through Thursday, from 9:00 to 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

HV

Hai Vo  
HAIVO  
PRIMARY EXAMINER